



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,195	04/25/2007	Yvan Pannatier	294549US28PCT	6796

22850 7590 07/01/2011  
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
----------

MEINECKE DIAZ, SUSANNA M

ART UNIT	PAPER NUMBER
----------	--------------

3684

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

07/01/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,195	<b>Applicant(s)</b> PANNATIER ET AL.	
	<b>Examiner</b> SUSANNA M. DIAZ	<b>Art Unit</b> 3684	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) 43 and 44 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/6/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This non-final Office action is responsive to Applicant's election filed April 7, 2011. Applicant has elected Group I (claims 23-42) without traverse. The election requirement is made final.

Non-elected claims 43-44 stand as withdrawn.

Claims 23-42 are presented below.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 23-42 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. Explanation regarding how all of the permutations created by the possible combinations of elements recited in the alternative (e.g., using "and/or") is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). The breadth of the claims is so far-reaching due to the plethora of recited alternatives, particularly since the presented alternatives appear to imply very different functionality. While the optimization of technical facilities and risk determination of technical facilities are both fairly well developed areas, both the specification and claims are so deficient in explanation as to how the various permutations would work together that one skilled in the relevant arts would not have

known how to make and/use the intended invention (including all possible permutations) as intended by Applicant. Both the specification and claims are lacking in many details required to explain how the invention operates.

Claim 32 refers to details of a two-dimensional matrix table, where a first dimension is "allocated to the protection level of a technical facility" and a "second dimension if allocated to the risk level of a technical facility." It is not clear what is meant by "allocating" each dimension to either the protection level or the risk level. Then, claim 32 recites "transferring...the sum of the products of the protection elements...and transferring the sum of products of the risk elements." What is meant by "transferring" these sums? Also, how can both the "at least one risk analysis value" and "facility optimization value" be determined on the basis of location of entry in the matrix table? Claims 33-37 are dependent from claim 32 and therefore inherit the same problems. The Examiner has looked toward the specification for guidance. Pages 14-15 of the specification refer to Figures 3 and 4 to define the matrix table; however, Figures 3 and 4 are not labeled and do not provide any greater insight into what is going on in claims 32-37. For example, it is not clearly explained how the location of a point on the matrix yields a tangible value reflecting a risk analysis value, a facility optimization value, or both. It is not even explained what the risk analysis value or the facility optimization value represents. There are so many gaps in the specification, drawings, and claims that one skilled in the relevant arts would not have known how to make and/use the intended invention (including all possible permutations) as intended

Art Unit: 3684

by Applicant. Both the specification and claims are lacking in many details required to explain how the invention operates.

Claim 42 refers to a knock-out protection that "determines and/or dominates behavior of the entire group if a given limit value of the knock-out protection element is reached." The metes and bounds of this limitation are not clear. What is meant by determining behavior or dominating behavior? Looking toward the specification, page 17 uses the same wording from the claims, yet no further explanation is provided. There are so many gaps in the specification, drawings, and claims that one skilled in the relevant arts would not have known how to make and/use the intended invention (including all possible permutations) as intended by Applicant. Both the specification and claims are lacking in many details required to explain how the invention operates.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 23-42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of claims 23-27 refers to a device; therefore, these claims are interpreted as apparatus claims. It is not clear what the metes and bounds of the various modules are. If they're software, then the modules should clearly be tied to structural elements of the claimed invention. However, the second limitation of claim 23 recites that the capture module (from the first limitation) comprises at least one

Art Unit: 3684

measuring device and/or sensor. This raises questions over whether the modules, devices, and the sensor are actually hardware or software. Furthermore, claim 23 merely recite that the measuring device and/or sensor are connected to the optimization device. It is not clear if the optimization device is within the scope of the claims or not.

Furthermore, the scope of the fifth limitation in claim 23 is unclear, particularly the language "at least one risk element and/or at least one protection element stored allocated to the technical facility." There appears to be a word/phrase missing.

Dependent claims 24-27 do not remedy the issues of claim 23; therefore, the same rejections apply.

Claims 23-42 recite various references to "can be." It is not clear what "can be" means in terms of the claim scope. For example, in the method claims, is the corresponding function actually performed or not? In the apparatus claims, does "can be" refer to active configuration of structural elements of the claim?

Claim 31 recites that "the facility risk types are generated such that a technical facility can always be allocated unambiguously in each case to one facility risk type." It is not clear what is meant by "unambiguously" allocating a technical facility to one facility risk type. Does this merely mean that each technical facility only belongs to one risk type and there is no overlap among risk types?

The repeated use of "and/or" throughout claims 23-42 is confusing. For example, the preamble of claim 23 refers to "a device for automated optimization of a service life of technical facilities and/or risk determination of technical facilities." How are "automated optimization of a service life of technical facilities" and "risk

Art Unit: 3684

determination of technical facilities" related? Does the optimization inherently involve the risk determination or can the two be completely separate analyses? Claim 23 recites "an analysis module for analyzing the facility data and/or optimizing the service life of the facility." Is there a difference between analyzing the facility data and optimizing the service life of the facility? Are the two related and performed in conjunction with one another? Then, the capture module is recited as comprising "at least one measuring device and/or sensor." Are the measuring device and sensor meant to be the same type of device or completely distinct from each other? Claim 23 also recites "wherein a risk instance and/or a risk potential of the technical facility can be detected in a quantified manner by a risk element." What is the difference between a risk instance and a risk potential? Would both be assessed at once or can they merely refer to one and the same measurement? The last limitation of claim 23 recites that the evaluation module is for determining "risk analysis values and/or facility optimization values on the basis of the sum of the products of the risk elements with associated weighting factors and quality factors combined with the sum of the products of the protection elements with associated weighting factors and quality factors." How can the combined sums yield two different sets of values (i.e., the risk analysis values and the facility optimization values)? The repeated use of "and/or" (particularly to define alternatives that imply different sets of functions) is very confusing. It is not even clear that all of the permutations resulting from the various possible combinations of "and/or" limitations would be operable together. For example, it seems that some of the alternatives make more sense when optimizing service life of technical facilities and

other alternatives would speak more toward the risk determination of technical facilities. This problem is further exacerbated by the addition of the “at least one risk element and/or one protection factor” into the mix in claim 24. Similar problems arise in claims 28-42. Additionally, claim 33 presents “at least one definable risk analysis value and/or facility optimization value.” Claim 42 introduces the limitation “wherein a knock-out protection element determines and/or dominates behavior of the entire group if a given limit value of the knock-out protection element is reached.”

The last limitation of claim 23 recites that the evaluation module is for determining “risk analysis values and/or facility optimization values on the basis of the sum of the products of the risk elements with associated weighting factors and quality factors combined with the sum of the products of the protection elements with associated weighting factors and quality factors.” It is not clear if both sums are then added together or if “combined” refers to another type of comparison of the two sums.

Claims 24 and 29 refer to a “reference value” being generated for each facility risk type and then normalizing the facility data of different technical facilities based on the reference value. Is the reference value meant to be a range of values or threshold of values? Otherwise, how can the data be normalized based on a single quantitative value?

Claim 32 refers to details of a two-dimensional matrix table, where a first dimension is “allocated to the protection level of a technical facility” and a “second dimension is allocated to the risk level of a technical facility.” It is not clear what is meant by “allocating” each dimension to either the protection level or the risk level.



Then, claim 32 recites "transferring...the sum of the products of the protection elements...and transferring the sum of products of the risk elements." What is meant by "transferring" these sums? Also, how can both the "at least one risk analysis value" and "facility optimization value" be determined on the basis of location of entry in the matrix table? Claims 33-37 are dependent from claim 32 and therefore inherit the same problems.

Claim 42 refers to a knock-out protection that "determines and/or dominates behavior of the entire group if a given limit value of the knock-out protection element is reached." The metes and bounds of this limitation are not clear. What is meant by determining behavior or dominating behavior?

Appropriate correction is required.

*Because claims 23-42 are so indefinite, no art rejection is warranted as substantial guesswork would be involved in determining the scope and content of these claims. See In re Steele, 305 F.2d 859, 134 USPQ 292 (CCPA 1962); Ex parte Brummer, 12 USPQ 2d, 1653, 1655 (BdPatApp&Int 1989); and also In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). Prior art pertinent to the disclosed invention is nevertheless cited and Applicant is reminded they must consider all cited art under Rule 111(c) when amending the claims to conform with 35 U.S.C. § 112.*

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jansson et al. (WO 00/70513 A1) – Monitors risk factors and protections in a plant, using various sensors and computer units.

Helitzer et al. (US 2005/0055249 A1) – Determines a difference between weighted risks and weighted risk protections to determine a minimized risk.

Lu (US 2004/0044617 A1) – Benchmarks risks.

Ahamparam et al. (US 2003/0135390 A1) – Benchmarks risks.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to SUSANNA M. DIAZ whose telephone number is (571)272-6733. The examiner can normally be reached on Monday-Friday, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Dunham can be reached on (571) 272-8109. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3684

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SUSANNA M. DIAZ/  
Primary Examiner, Art Unit 3684